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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,498	01/09/2004	Soo Young Oh	0630-1914P	6820
2292	7590	09/22/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			HUSBAND, SARAH E	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	

1746

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

C

<b>Office Action Summary</b>	<b>Application No.</b> 10/753,498	<b>Applicant(s)</b> OH ET AL.	
	<b>Examiner</b> Sarah E. Husband	<b>Art Unit</b> 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 6/26/2006 regarding the restriction requirement have been fully considered but they are not persuasive. The arguments are not persuasive because the different species are mutually exclusive as shown in the figures; therefore the restriction requirement is proper and was previously made FINAL. Applicant specifically indicated which claims related to the elected species in the previous response and therefore the other claims do not read on the elected species.

Applicant's arguments, see Remarks, filed 6/26/2006, with respect to the rejection(s) of claim(s) 1-7 under 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Jenkins and Charland (US 4311160).

Applicant's arguments, see Remarks, filed 6/26/2006, with respect to the specification have been fully considered and are persuasive. The objection of the specification has been withdrawn.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins (GB 21286) in view of Charland (US Patent No. 4,311,160)

Jenkins discloses a washing machine having a steam input and therefore also a steam generator which would inherently be present to produce the steam (page 2, lines 45-50). Jenkins also discloses a spray nozzle (D, E) communicating with the steam supply and circulation water supply and a circulation pump for pumping circulated water discharged from a tub and returning to the drum (page 3, lines 1-5). Jenkins further discloses a back-current preventing branch unit (Fig. 3, Item G3) preventing the flow of circulation water to the steam nozzle during the addition of steam (page 3, ll. 20-25; see entire document as well), however does not disclose the unit in connection with the steam generator. Charland discloses a back current prevention unit (fluid mixing valve) controlling the release of water and steam (See Fig. 1, Items 17, 18; entire document) and a single nozzle and connected to individual branches of water and steam. Charland's valve also prevents the backflow mixing of steam and water (see abstract). Although Charland does not disclose the specific flap valve, valves are well known in the art and one of ordinary skill would foresee the substitution of any such structure to provide this function. The courts have ruled that the substitution of known equivalent structures is obvious, *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Jenkins with Charland for the benefit of better controlling the addition of steam and water and preventing unwanted mixing.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins and Charland as applied to claims 1-4, 19 and 20 above, and further in view of Love (US Patent No. 5,491,857).

Jenkins and Charland disclose the apparatus shown above in the 103(a) rejection. They do not expressly disclose a nozzle unit having a flange and guide or spray angles of certain degrees. Love discloses a nozzle having a flange and guide (see Fig. 2) and also having certain spray angles of 90° and 30°-40° (col. 4, ll. 35-55). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Jenkins and Charland with Love for the benefit of an improved dispersal of fluid and wetting of clothing.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not referred to are Sieber (US 3473175), and Matsushita (JP 2003-858778), who disclose washing machines with steam and/or water cleaning nozzles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**

A handwritten signature in black ink, appearing to read 'Michael Barr', with a long horizontal flourish extending to the right.

SEH